AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1 - 29. (Canceled)

30. (Currently amended) A support arrangement, comprising: ~~characterised in that it includes~~

a vessel in the form of a core barrel of a high temperature gas cooled reactor which is housed within a reactor pressure vessel, the core barrel being elongate ~~generally cylindrical~~ in shape and having an axis which extends ~~generally~~ vertically;

a single vertical support for supporting the weight of the core barrel, the vertical support including upper and lower support members which are connected respectively to the core barrel and the reactor pressure vessel between which ~~the~~ vertical loads are transmitted, the upper and lower support members ~~which are relatively~~ being centrally positioned about the axis and displaceable relative to one another, ~~defining oppositely~~ the upper and lower support members defining respectively downwardly and upwardly disposed contact surfaces through which the vertical loads are transmitted ~~are centrally positioned about the axis~~; and

lateral support means ~~for providing~~ configured to provide lateral support to the core barrel, the lateral support means including a plurality of circumferentially spaced upper lateral supports configured to provide lateral support to the core barrel at or towards an upper end thereof, each of which includes a set of inner and outer lateral

support members connected to the core barrel at or towards the upper end thereof and the reactor pressure vessel, respectively, and a roller element sandwiched between the inner and outer lateral support members.

31. (Currently amended) A support arrangement as claimed in claim 30, ~~in which~~ wherein at least one of the downwardly and upwardly disposed contact surfaces is curved.

32. (Currently amended) A support arrangement as claimed in claim 31, ~~in which both of~~ wherein the downwardly and upwardly disposed contact surfaces are curved.

33. (Currently amended) A support arrangement as claimed in claim 32, ~~in which~~ wherein the upper support member defines a concave contact surface, the lower support member defining an oppositely disposed convex contact surface.

34. (Currently amended) A support arrangement as claimed in claim 33, ~~in which the~~ wherein a radius of curvature of the convex contact surface is smaller than ~~that of the~~ a radius of curvature of the concave contact surface.

35. (Withdrawn - currently amended) A support arrangement as claimed in claim 30, ~~in which~~ wherein the vertical support includes an intermediate member interposed between the upper and lower support members.

36. (Withdrawn - currently amended) A support member as claimed in claim 35, ~~in which~~ wherein the intermediate member defines upper and lower contact surfaces which cooperate, respectively, with complementary contact surfaces of the upper and lower support members.

37. (Withdrawn - currently amended) A support arrangement as claimed in claim 36, ~~in which~~ wherein the contact surfaces of the intermediate member are convex with the complementary contact surfaces of the upper and lower support members being concave.

38. (Withdrawn - currently amended) A support arrangement as claimed in claim 37, ~~in which~~ wherein each convex contact surface has a radius of curvature which is smaller than ~~that~~ a radius of curvature of the complementary concave contact surface.

39. (Canceled)

40. (Withdrawn - currently amended) A support arrangement as claimed in claim 30, ~~in which~~ wherein the roller includes at least one gear wheel having teeth, and at least one of the inner and outer upper lateral support members is provided with teeth which are complementary to ~~those~~ the teeth on the gear wheel to ensure that relative

displacement between the roller and complementary bearing surfaces of the inner and outer upper lateral support members is by rolling.

41. (Withdrawn - currently amended) A support arrangement as claimed in claim 40, ~~in which~~ wherein the bearing surfaces of the inner and outer upper lateral support members are inclined.

42. (Withdrawn - currently amended) A support arrangement as claimed in claim 30, ~~in which~~ wherein at least one of the inner and outer upper lateral support members of each set of inner and outer lateral support members is mounted on a resiliently deformable support.

43. (Withdrawn - currently amended) A support arrangement as claimed in claim 42, ~~in which~~ wherein each outer upper lateral support member is mounted on a resiliently deformable support ~~which, in turn~~, and the resiliently deformable support is mounted on an upper support ring secured to the reactor pressure vessel.

44. (Withdrawn - currently amended) A support arrangement as claimed in claim 43, ~~in which~~ wherein the resiliently deformable support includes a pair of support posts connected to the upper support ring at spaced apart positions and an elastically deformable guide beam which extends between the support posts and on which the outer upper lateral support member is mounted.

45. (Withdrawn - currently amended) A support arrangement as claimed in claim 44, ~~in which~~ wherein the position of the guide beam is adjustable ~~thereby permitting~~ so as to permit the relative positions of the inner and outer upper lateral support members to be adjusted.

46. (Withdrawn - currently amended) A support arrangement as claimed in claim 30, ~~in which~~ wherein the lateral support means includes a plurality of circumferentially spaced lower lateral supports positioned to provide lateral support to the core barrel adjacent to a lower end thereof.

47. (Withdrawn - currently amended) A support arrangement as claimed in claim 46, ~~in which~~ wherein each lower lateral support includes an elastically deformable locating element extending radially between inner and outer receiving ~~formulations~~ formations to transmit lateral loads between the core barrel and the reactor pressure vessel.

48. (Withdrawn - currently amended) A support arrangement as claimed in claim 47, ~~in which~~ wherein the inner receiving formations are provided on the upper support member and the outer receiving formations are protrusions which protrude radially inwardly from a lower support ring secured to the reactor pressure vessel.

49. (Withdrawn - currently amended) A support arrangement as claimed in claim 30, ~~which includes~~ further comprising auxiliary support means for providing

support to the core barrel within the reactor pressure vessel when subjected to loads in excess of normal operational loads ~~such as would be experienced during a seismic event~~.

50. (Withdrawn - currently amended) A support arrangement as claimed in claim 49, ~~in which~~ wherein the upper support member includes a central member which extends downwardly from the bottom of the core barrel and a plurality of angularly spaced support beams connected to the bottom of the core barrel and to the central member and extending radially outwardly from the central member, the auxiliary support means including a lower auxiliary support including a plurality of circumferentially spaced radially inwardly facing slots in which radially outer ends of the support beams are receivable with clearance.

51. (Withdrawn - currently amended) A support arrangement as claimed in claim 50, ~~in which~~ wherein the slots are defined on a radially inner surface of a lower support ring secured to the reactor pressure vessel.

52. (Withdrawn - currently amended) A support arrangement as claimed in claim 49, ~~in which~~ wherein the upper support member includes a central member which extends downwardly from a bottom of the core barrel and a plurality of angularly spaced support beams connected to the bottom of the core barrel and to the central member and extending radially outwardly from the central member to an annular skirt which depends from the core barrel, the auxiliary support means including a lower auxiliary

support which includes a plurality of circumferentially spaced protrusions which protrude radially inwardly from a lower support ring secured to the reactor pressure vessel and which are received with clearance in complementary slots in the skirt.

53. (Withdrawn - currently amended) A support arrangement as claimed in claim 49, ~~in which~~ wherein the auxiliary support means includes an upper auxiliary support comprising a plurality of circumferentially spaced ribs connected to and protruding outwardly from the core barrel and complementary slots provided in and opening out of a radially inner surface of the upper support ring within which slots end portions of the ribs are receivable with clearance.

54. (Withdrawn - currently amended) A method of supporting a vessel in the form of a core barrel of a high temperature gas cooled nuclear reactor which is housed within a reactor pressure vessel, the core barrel being ~~generally cylindrical~~ elongate in shape and having an axis which extends ~~generally~~ vertically, the method ~~being characterised in that it includes~~ comprising:

transmitting the weight of the core barrel and its contents to the reactor pressure vessel through a single vertical support having upper and lower support members connected respectively to the core barrel and to the reactor pressure vessel between which the weight is transmitted, the upper and lower support members being centrally positioned about the axis and displaceable relative to one another and defining respectively downwardly and upwardly disposed contact surfaces through which the weight is transmitted; and

transmitting lateral loads between the core barrel and the reactor pressure vessel through a lateral support which is positioned at or adjacent an upper end of the core barrel and which includes a plurality of circumferentially spaced upper lateral supports each of which includes a set of inner and outer lateral support members connected to the core barrel at or towards the upper end thereof and the reactor pressure vessel, respectively, and a roller element sandwiched between the inner and outer upper lateral support members.